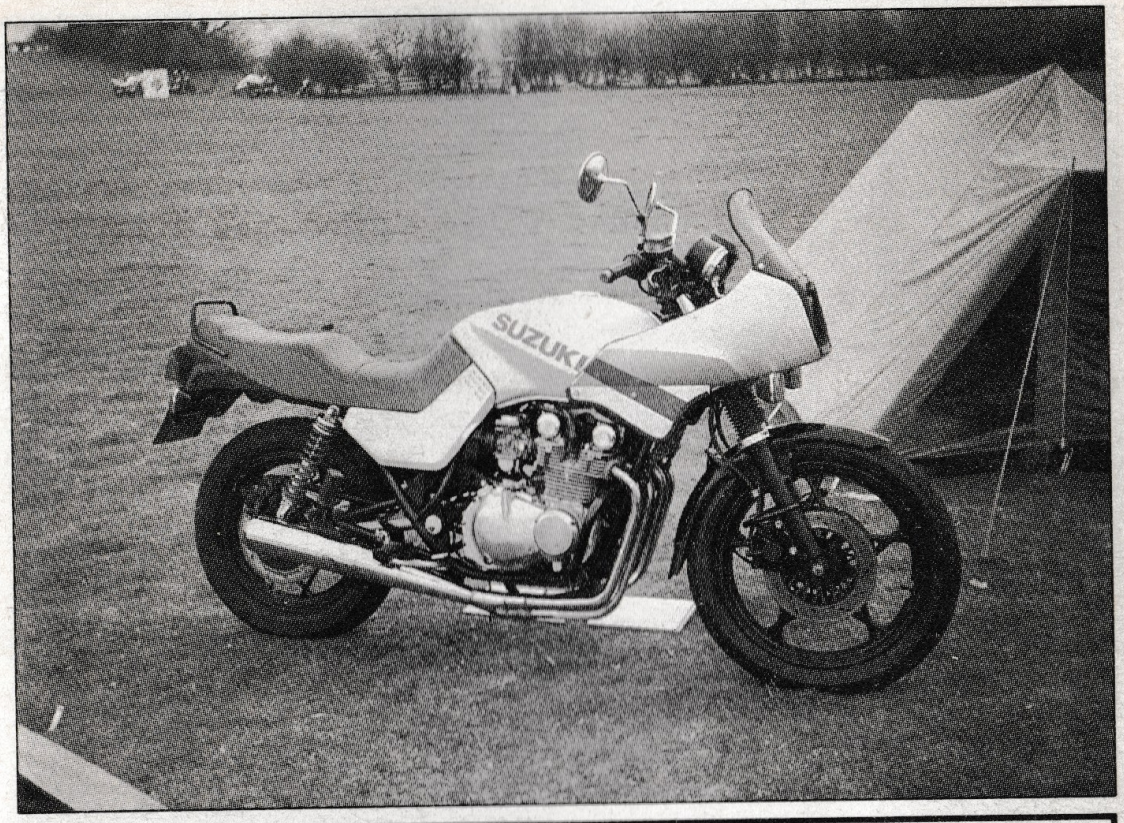


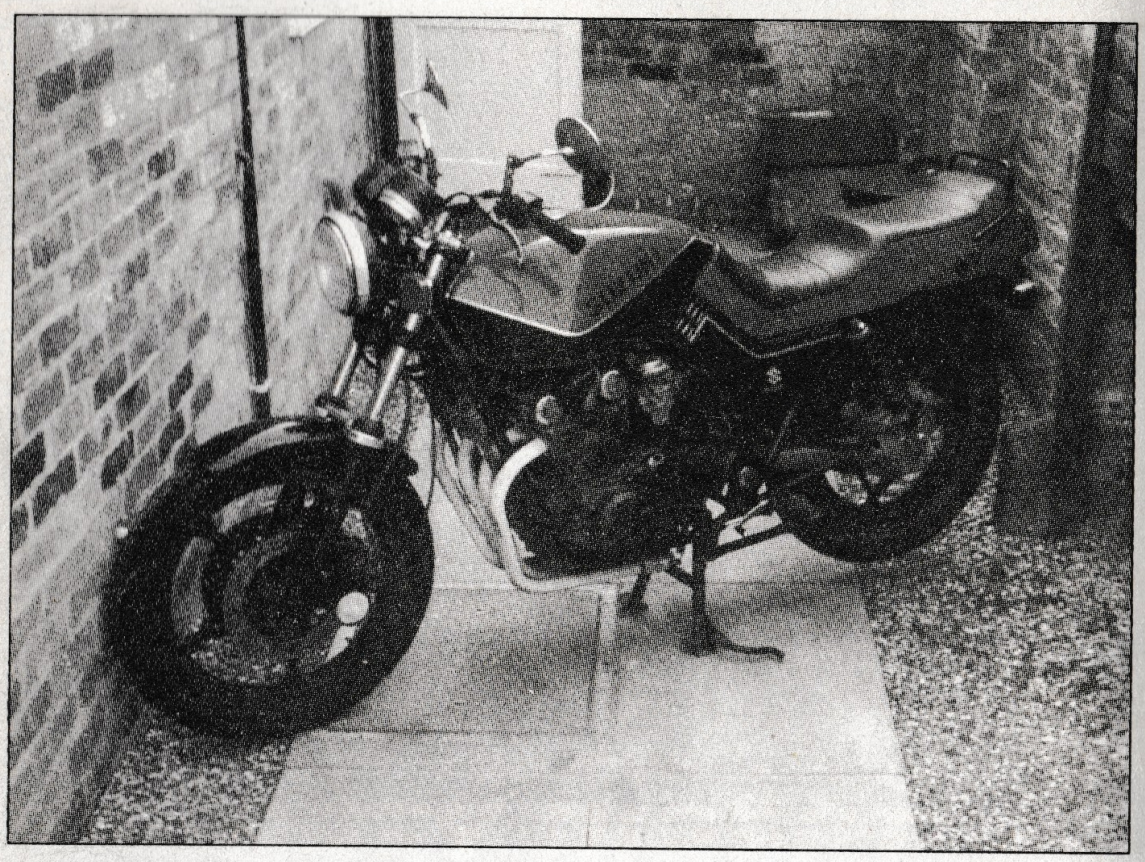
120,000 MILES OF KATANA USE

THE SUZUKI GS650 KATANA IS MOST definitely now in the 'cheap transport' league. Good examples can be picked up for £1300 or less, high mileage or examples in poor cosmetic state for loads less. Yet here is a bike that will do high mileage and offers ready to use, fast, efficient transport. And do all that with easy and cheap maintenance.

The GS range of Sukukis, including the Katana, is not without its faults. The most common being trouble with the charging system. This particular problem stems from the generator or voltage control boxes. But this is more rare than some would have us believe and is easy and cheap to fix. The expensive one piece regulator and rectifier can be replaced from the breakers with items from other bikes or new items from car accessory dealers, and the generator can be rewound for less than £50. You may also find that bikes with over 50,000 miles on the clock tend to use a bit of oil. This is usually down to gummed up piston rings and, given that the across the frame four cylinder engine is a doddle to work on, is easy to fix. Use after-market gaskets, etc for complete economy. The even easier option is to remove the filter from the breather on the cylinder head and ride a bit slower!

The down side out of the way, you end up with a bike that will be relatively maintenance free. The ignition is electronic; just leave it alone. The valve clearances are bucket and shim and never seem to want doing, but if they do the shim is located above the bucket and it is a simple job to ease the bucket down and remove the shim using the

READERS' WHEELS

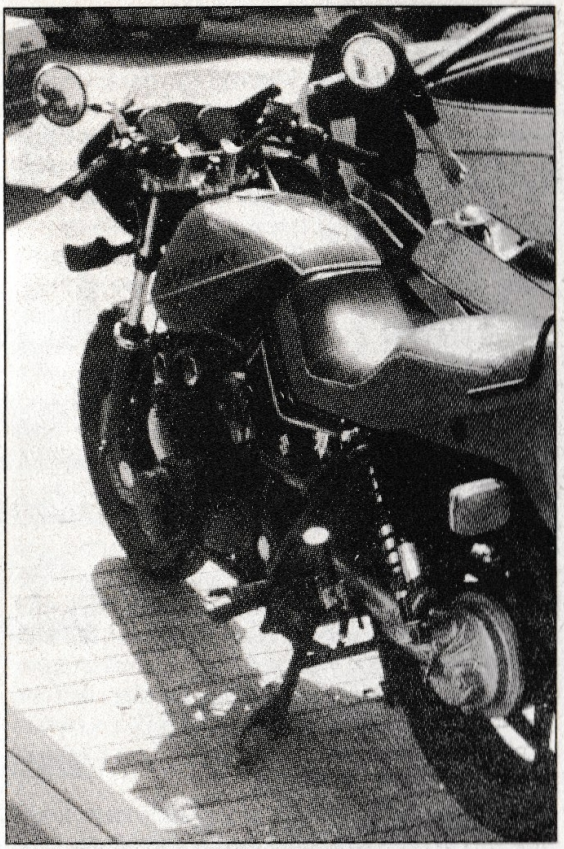


wife's eyebrow tweezers. The camchain tensioner is fully automatic and mostly works well. The bobs, etc on the tensioner are to hold the tensioner back on stripping the engine down, but can just as easily be used to clamp the tensioner out if the spring is old and slack. The carbs always stay within reasonable balance, which is just as well as removing the screws to fit the air hoses for vacuum gauges will result in burnt fingers (we all do our carb balancing with the engine hot, don't we?) and the air cleaner is the 'wash, oil and go' type.

On those cold wet winter days the last thing you want to do upon returning home from work is oil and adjust chains – the 650 Katana has shaft drive. Not that you would notice any other time as the bike does not suffer any ill affects on handling that some marques do. If you were to ride the bike without looking at the back wheel first, you would not realize it had shaft drive. Again, with high mileage models, you may find the back wheel a bit oil-sprayed from the bevel box. Don't worry, it is highly unlikely to be the oil seal. If cheap oil has been used in the bevel box it may froth up and come out of the breather. Alternatively the breather may have become blocked, forcing oil past the seal. Both quick, cheap and easy to fix.

The Katana is also blessed with a 23 litre (five gallon) fuel tank, five litres (one gallon) of which is reserve. With an average fuel consumption in excess of 50mpg that gives a range of 200 miles before reserve and a further fifty miles before Mr Pushit arrives. Fuel consumption doesn't vary greatly. You can expect it to drop to a low of 40mpg if you're pushing three figure numbers on the speedo (on the continent of course, Officer) and highs of 60mpg are easily achievable with a cool and chilled-out riding style. Your average 80mph on dual carriageway and 70 on singles should give you 50mpg.

The Katana is supposed to run on unleaded fuel. However, if the bike has done high mileage you may find that it will suffer some problems. Using unleaded and some makes of four star will induce pinking. The correct answer is to take the



cylinder head off and clean things up. However, I fitted a Fuel Cat fuel octane booster and the bike will now run on almost anything beginning with 'pet' and available at extortionately taxed figures at your local petrol station.

All that would be academic on a bike that sent your nether regions asleep, which is one of the surprising areas of the Katana. Although it appears to have a sporting riding position, because of the low seat height, it is surprisingly comfortable and you will find that 200 miles non-stop is really no effort.

The handling of the bike is surprisingly good. The standard twin back shocks are adjustable for spring pre-load and damping, work well and seem to last well. Both of my Katanas reached 60,000 with the original shocks. However, once they are shot be careful with the replacements. The standard shocks are quite long and fitting shorter ones will squat down the back end, splay out the front end and you will find yourself doing chop impersonations: complete with associated handling!

I fitted a Fuel Cat fuel octane booster and the bike will now run on almost anything beginning with 'pet' and available at extortionately taxed figures at your local petrol station...

If you're stuck you can get away with dropping the front forks in the yokes but even given the very good ground clearance you may need to be careful. Front suspension is adjustable for pre-load (achieved by turning the adjustable thingy under the rubber grommet thingies on top of the forks). Use the hard setting only if you have the back end on hard too. Better tuning of the front end can be achieved by mixing and matching the damping oil. The standard 50% fork oil to 50% engine oil is usually OK but those of you with hard rear ends (you, not the bike) who like their rear ends hard (the bike, not you) may wish to experiment.

Coupled with taper roller steering head and swinging arm bearings, and a very rigid frame that out-performs the engine, you end up with a bike that you can have a lot of fun on without getting into trouble. Like most Jap bikes, the head bearings are not very well protected from the elements but are a standard size and available from ordinary bearing factors at a most reasonable price (many zeros below OE prices). The swing arm tapers are mounted on adjustable stub axles; a doddle to get out, grease and replace – no excuses.

Both the Katanas I've owned have been fitted with fairings. Not your barn door jobs but just enough to keep the crick away from the neck on longer journeys. The first one was a handlebar fairing from an early Yamaha YPVS, the second is a frame-mounted top half from an old twin shock GSX750. The bike is capable of sitting on the motorway at the sort of speed which will rapidly lose your license but only if you have neck muscles from Gladiators or a fairing!

READERS' WHEELS

The standard tyres are usually replaced with a 17 x 130 section at the back and a 19 x 100 section at the front, both of which are 90% aspect ratio. As standard the Katana had quaint inch-measured 100% aspect things which are H-rated. I have found that a V-rated tyre is more suitable as the H-rated ones were overheating when pushed a bit with the bike fully loaded. The bike is not fussy about its tyre model but is on tyre make. It does not feel happy on Metzelers, Continentals or Pirelli tyres. It's not that they will actually lose grip – just a case of simply not feeling right. Dunlop Arrowmax and some of the standard ranges of Avon work OK but the best results are obtained with Avon Super Venoms, which so out-perform the engine that you can get away with blue murder, but also allow superb control without white lining or any other quirks. The price you pay is in wear rates. With a tyre like a Super Venom you can expect 5000 miles on the back and 7000 on the front average, as seasonal use will affect wear. With other brands this can be increased to 7000 at the back and 10,000 at the front, although with any tyre performance will drop off as the tyre reaches its half life. With the Katana this can result in a vagueness with the steering at higher speeds.

The brakes are well up to the job; twin discs at the front and a single at the back. The twin piston back caliper can suffer from corrosion, but keeping an eye on it and correct servicing will obviate those problems. Should neglect result in a seized back calliper then any old one from the GS range of Suzuki or the V-twin VX800 will do. The brakes are not up today's standards but are capable of out-performing the tyres, so stronger brakes would simply mean locking the wheels up sooner. The pad life on the bikes I have owned has been very good – 15,000-20,000 at the back and 10,000-15,000 on the front, which is good considering how I ride. This may be due to the fact that on all the bikes I have owned I have wound off the tickover. It doesn't really save money on higher mileage bikes as you will use more oil, but makes a wicked sound on overrun!

If you love the looks, get one, give the old tart some new boots, panties and some make-up, and it will see the second half of its life and happily go round the clock.

I find the engine braking useful for trimming speed rather than keep touching the brakes.

My first Katana came to me with one of those awful Alfa 4-1 exhausts. All top end performance and flat as a pancake everywhere else. And the sort of noise that gave you headache and deafness (pardon) on a long journey (I heard that). It was sorted out by grafting a Harris exhaust (off I don't know what) onto the back end of the Alfa downpipes and collector: what a difference! Makes you wonder when a manufacturer can produce a silencer that is half the size, half the weight and works better than standard, and while being perceptively no noisier can sound so much better.

My second Katana had a Motad system fitted and at first I thought there was something wrong with the bike. The performance at the top end was very sluggish. Having checked out everything else, it appeared to be the exhaust system, so the collector box was modified. First by being ground away during a mad thrash in Cumbria two-up with camping gear which wore away the metal allowing the exhaust to 'breath better'. After modifying and repairing the collector, it now sits up much higher and the exhaust works better – and sounds better. It now has a deep mellow sound where as before it sounded a hit like a wet f**t!

As far as looks are concerned, like most modern bikes with looks anything different from the standard plastic fantastic, you either love or loath it. If you love it get one, give the old tart some new boots, panties and make-up, and it will see the second half of its life and go round the clock.

Steve Bergman / UBG

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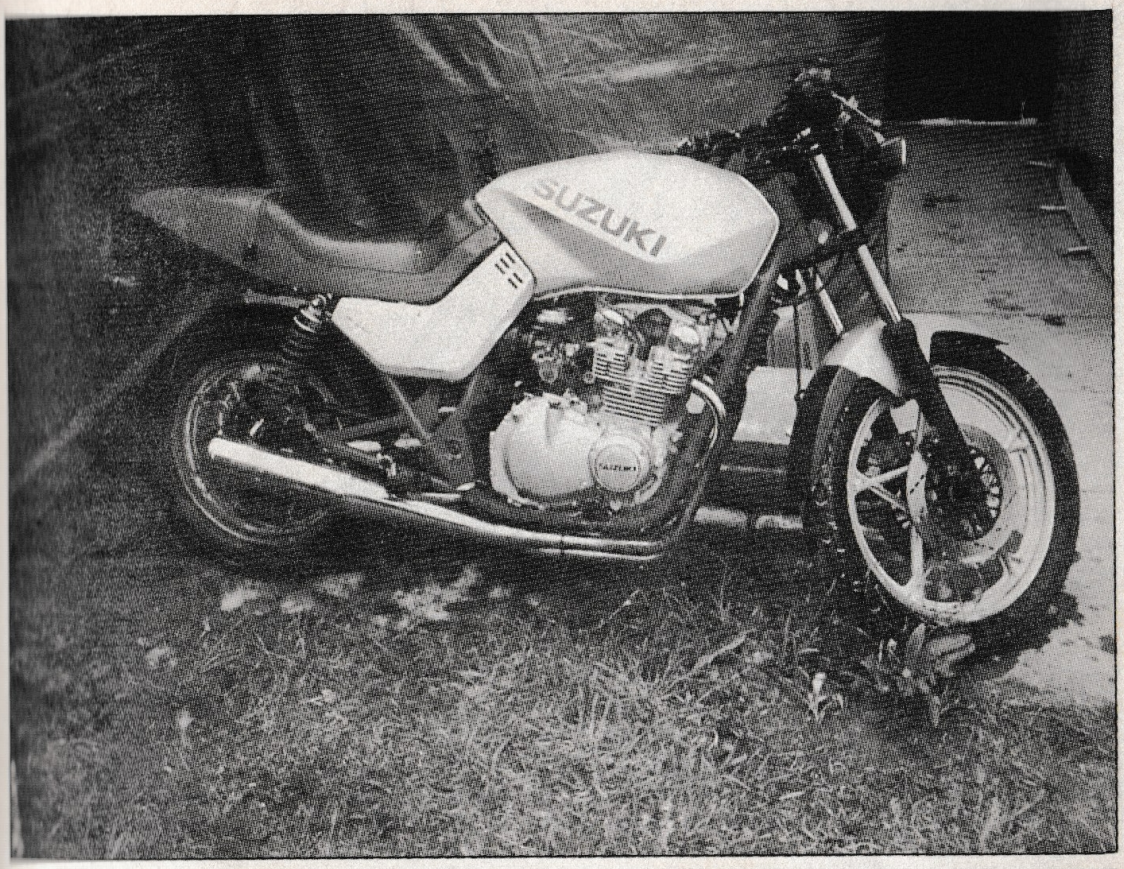

KAT KONSERVATION
Fixing An Old Pussy!

BUYING A NON-RUNNER CAN BE A BIT of a gamble. You can get a bargain or a money pit. When the owner tells you that there was nothing wrong with it when it was parked up for the last time – he may even be telling the truth. Or not. Or maybe that's what the previous owner told him when he sold it as a non-runner to the present owner? Still, the chance to get your hands on a bike you can sort out for very little (you hope) is tempting. Maybe you can't afford to buy a runner or perhaps you like to mess with bikes and see this as a way of making some beer money out of your hobby? Before you gamble the wife's holiday money away here's a true story for your consideration...

This is the deal. One Suzuki GS650 Katana. Been in retirement in a conservatory since 1994. Only 24,000 miles on the clock. All original except the exhaust which is a Motad in good condition. Paintwork has seen better days and will want sorting but little rust. Tyres are legal but are probably age-hardened. What do you reckon? As long as the engine is OK, you think to yourself, then sorted out this should be worth around £1300. You try to add all the potential expenditure up in your head while still listening to the owner chattering away. You take a chance, the owner looks reasonably honest so you part with £350. You load the bike onto your mate's van and keep your fingers crossed.

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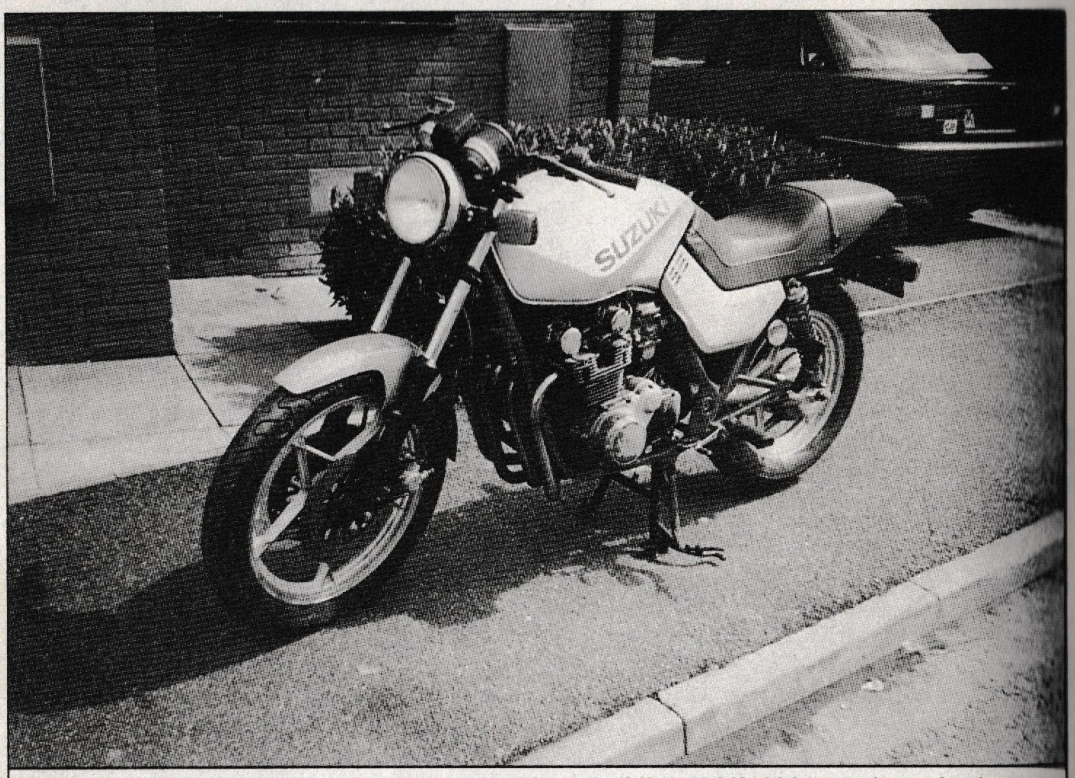

It may have been found in a conservatory, but the old Kat kleaned up nicely...

Back in the shed you walk round the bike and start making a list. Engine oil (£10), oil filter (£5), axle oil (£5), plugs (£15). And the air filter is missing. It's a wash and go foam rubber jobby which sets you back a good £20 to replace. You pay that and do that and run some jump leads from the wife's car. It turns over just fine but doesn't fire up. Welcome to the land of unleaded fuel! Next step is to remove the carbs and clean out all the gunk and tar left behind when unleaded fuel evaporates! And don't forget the fuel tap while you're at it. That done you try again. Yes! It fires up and sits there burbling away happily. Well chuffed or what? You make yourself a celebratory cup of tea and plan the next stage.

You're not too happy with the looks of the wiring so while you wait for the new battery (£20) to turn up via the postman you decide to strip the gubbins out of the frame and tidy it up properly. It all comes apart OK but the one piece rectifier and regulator has all sorts of dodgy looking connections.

You compare the unit to the wiring diagram in the manual. Three yellow wires are OK but all the others, including an extra one, are the wrong colour! Er, what to do now? You take it to a friendly, experienced mechanic who informs you it's not a Suzuki one and that the extra wire is a control wire!? He explains that the GS range of Suzukis had a nasty habit of scrapping their generating systems. With the genuine Suzuki unit costing around £100 it is common for older GS models to have had some, erm, bodging! You stare blankly at him and he sighs, takes it out of your hands and starts doing stuff to it with a box with a dial and wires. He hands it back to you with a piece of paper. Connect those wires with those wires just like it says on the diagram written on the piece of paper is what he explains. Completely confused, you head home.

Not really understanding what you are doing you follow his instructions and wire up the rectifier/regulator. You tidy up the rest of the wiring

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and put some paint on the various brackets and gubbins in the frame.

Meanwhile the battery gets delivered and you eagerly take it out of the box to find there's no acid in it. You spend the rest of the day finding a shop that will fill it with acid and resolve to order the next battery from your local bike shop!

Brakes. You just know they'll be seized solid. Not worth mucking about; pull them all off and strip them down. It all goes swimmingly (in brake fluid) until the last bleed nipple breaks off... #*@*'*!! etc. What to do? You go to your local bike dealer who confidently says he'll sort the caliper out for you. First big mistake. Do you remember all those miserable old gits who used to run the dingy back street bike shops? Anything you wanted was accompanied with a sharp intake of breath and a phrase such as 'It'll take weeks, sonny'. Mind you, they did know what was the front end of a bike when they put their mind to it! Back to our New Wave Bike Dealership – the nice young man in the suit has completely wrecked the caliper! OK. We can spend the rest of the year in litigation while the Katana quietly gathers cobwebs or we can put this down to experience and walk away. A replacement secondhand caliper sets you back £20 from a breaker. Add £4 for a banjo bolt with a bleed nipple in nice stainless steel ... but the brakes are working.

As the days (weeks!) pass you check the steering bearings, the wheel bearings and swinging arm bearings. Carefully regreasing and adjusting them. All OK and no problems. About time you had some luck on this project! You change the fork oil (£5) and remove the rear suspension units for inspection. Luck's not looking too good again. The damper shafts look decidedly dodgy. You start to clean them up and hope that's only surface rust you can see. After much graft they look a bit better, if a little pitted. Only one thing for it now. You put them back on the bike on the hardest setting and hope the lack of movement stops any oil leaks.

Starting the bike up reveals a rattly sort of ticking from the top end of the engine. That will be the camshafts knocking from side to side in the way all Suzuki GS engines do when they want to tell you their carbs are out of balance. Otherwise it sounds OK. Time for a test run.

MoT Time. Remember to remove the centrestand, thus making it twice as hard to test the wheel, steering and swing arm bearings...

The brakes feel like they are fitted with wood for pads. No stopping power and no feel. But after a while they start to improve and just as you are starting to feel great the bike goes onto three cylinders...

After struggling home you find the bike runs much better when you've pushed the HT lead cap on properly!

MoT Time. Remembering to remove the centrestand, thus making it twice as hard to test the various wheel, steering and swing arm bearings you nervously pace around the bike shop while the bike's tested. You stand there stunned as the nice man tells you it's passed!

Off home now to dig out the insurance document and chequebook for the trip to the post office and the round piece of paper for legality.

It's been a bit of trouble but you've learned a lot. It's cost you about £450 so far but for that you have a fully sorted bike. About an extra £200 will sort the paint out making £650 spent all told. That's not bad at all as the bike will probably fetch £1100-1300. That makes it worth getting rid of those dodgy age-hardened tyres and putting something decent in place. Avon Super Venoms work nice. So do Bridgestone's commodities. And while you're at it some replacement rear suspension units wouldn't go amiss. Make sure you get something decent, something that's recommended for the bike. The suspension units on the 650 Katana are longer than most so the wrong ones will have the front end sticking out doing chop impersonations. Heaven knows what that would do to the handling.

So was it worth it? This time it was but it could have been different. All very character building though!

Steve Bergman / **UBG**